

Remarks:

Reconsideration of the application is requested.

Claims 1 to 8 and 10 to 19 remain in the application. Claims 1, 11, 12, and 16 have been amended.

In item 3 on pages 2 to 3 of the above-identified Office action, claims 1, 2, and 10 to 19 have been rejected as being obvious over U.S. Patent No. 5,983,112 to Kay in view of U.S. Patent No. 3,798,600 to Saikaishi et al. (hereinafter "Saikaishi") under 35 U.S.C. § 103.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form. However, the claims have been changed to even more clearly define that the method is carried out in the radio access control system.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. In a radio access control system for a motor vehicle, claim 1 calls for, *inter alia*, a method for carrying out simplex transmission of a data message modulated onto a carrier frequency, including the steps of:

wirelessly transmitting, in the radio access control system, a data message containing an access code more than one time using at least two different carrier frequencies **in temporal succession** to increase immunity to interference; and

changing the different carrier frequencies only within one single transmission channel by detuning, with at least one capacitor, an oscillating circuit of a carrier frequency generator.

In a radio access control system for a motor vehicle, claim 11 calls for, *inter alia*, a method for simplex radio transmission in a radio access control system for a motor vehicle, including the steps of:

wirelessly transmitting, in the radio access control system, a data message containing an access code more than one time using at least two different carrier frequencies in temporal succession to increase immunity to interference; and

changing the different carrier frequencies only within one single transmission channel by detuning, with at least one capacitor, an oscillating circuit of a carrier frequency generator.

In a radio access control system for a motor vehicle, claim 12 calls for, *inter alia*, a device for carrying out simplex transmission of a data message modulated onto a carrier frequency, including:

a carrier frequency generator for generating different carrier frequencies located only in a single narrowband channel, the carrier frequency generator having at least one capacitor and a detunable oscillator crystal detuned through the at least one capacitor; and

a transmitter modulating data messages containing an access code with the carrier frequencies and wirelessly transmitting the data messages in temporal succession in the radio access control system.

In a radio access control system for a motor vehicle, claim 16 calls for, *inter alia*, a device for carrying out simplex transmission of a data message modulated onto a carrier frequency, including:

a carrier frequency generator for generating different carrier frequencies located only in a single narrowband channel, the carrier frequency generator having at least one capacitor and a detunable oscillator crystal detuned through the at least one capacitor; and

a transmitter modulating data messages containing an access code with the carrier frequencies and wirelessly transmitting the data messages more than one time using at least two different carrier frequencies in temporal succession in the radio access control system to increase immunity to interference; the carrier frequencies only changed to have the carrier frequencies occur within one single transmission channel.

Kay discloses a mobile radio system having a plurality of cells A to G (see col. 4, lines 8 to 11). Each cell has a base station with a transmitting and receiving unit. When a call must be completed either to or from a mobile, a call set up phase is entered whereby the mobile and base station cooperate to locate and identify the called mobile (col. 4, lines 63-65). When the mobile detects the initiation of a speech spurt, a reverse allocation request is sent at three different times, at three different carrier frequencies, and on each transmission the power level is randomly selected

(col. 5, lines 2-8). This triply redundant message transmission is illustrated in FIG. 5 of Kay. Once the base station has located a traffic channel which the mobile can use for the transmission of the speech spurt, that assignment is transmitted back to the mobile in the same triply redundant fashion.

In Kay, the control channels (whether in the forward or reverse direction) are subdivided. As shown in FIG. 3, within each 6.67 ms slot time, there are two forward control channels. The 6.67 ms slot is subdivided into four subslots, as shown in FIG. 4. Importantly, as shown in Fig. 4, and explained in the paragraph in col. 5, beginning on line 14 of Kay, after the mobile has identified the initiation of a speech spurt the mobile then **randomly** selects an RA subslot from slot 1, an RA subslot from slot 2 and an RA subslot from slot 3. According to Kay, performance management (trading off increased delay for increased probability of successful transmission) may be implemented by **randomly selecting** subslots in the first three pairs of available subslots, etc. (col. 5, lines 22-25).

This method of transmitting described in Kay varies greatly from that of the present invention, which is to transmit a data message in temporal succession, as recited in claims 1, 11, 12, and 16 of the instant application.

In fact, the invention of Kay cannot transmit a message in temporal succession. Looking to FIG. 6 of Kay, and to col. 5, lines 57 to 59, "the subslots which are shaded and labeled 'exclusive slots' cannot be used by the mobile for transmission of its reverse allocation request." (Emphasis added by applicants). This configuration necessarily breaks the succession of data.

Clearly, Kay does not show wirelessly transmitting a data message more than one time using at least two different carrier frequencies *in temporal succession*, as recited in claims 1, 11, 12, and 16 of the instant application.

In the Office action, the Examiner agrees with applicants and admits that "Kay fails to elaborate on how different carrier frequencies are generated." To make up for the deficiencies of Kay, the Examiner combines Kay with Saikaishi. Before an examination of the disclosure of Saikaishi is made, applicants respectfully believe that a further look into the Kay system is required.

Unlike the system according to the invention, the system disclosed in Kay requires two sets of messages, the first set consisting of voice messages that are routed through the system, and the second set consisting of control messages that

are required to condition the system. It is respectfully believed that the Examiner is misinterpreting Kay's teaching by equating these control messages with the messages of the system according to the invention. Such a comparison can only be made possible by impermissibly viewing Kay *retrospectively* in view of the instant application.

Applicants respectfully believe that any teaching, suggestion, or incentive possibly derived from the prior art is only present with hindsight judgment in view of the instant application. "It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. . . . The references **themselves** must provide some teaching whereby the applicant's combination would have been obvious." In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (emphasis added). Here, no such teaching is present in any of the cited references.

In addition, if one should be allowed to consider a particular set of messages according to Kay in the context of a system like the one according to the invention, these messages should be *voice messages*. As to these voice messages, Kay contains no suggestion whatsoever, let alone an express teaching, of improving transmission of such messages in any way. Rather, Kay teaches that any distortion that could possibly occur

during transmission of such a voice message *is to be ignored*.

Kay's modifications pertain only to the control messages, as is apparent from the portions in Kay cited by the Examiner. The messages whose transmission is to be improved are always extremely short to allow for their transmission in specifically arranged "subs lots" of "slots," which are, in turn, subdivision of "frames".

Continuing the hypothetical (of which the applicants do not agree), and in accordance therewith, if Kay's teaching could apply to a radio access control system for a motor vehicle by providing message sets and processes for specific conditioning of the system, it would not solve the problem of improving transmission of the information containing messages that are routed through the system. Accordingly, Kay is of no use whatsoever towards suggesting the system according to the invention.

None of the other references cited by the Examiner is suitable to bring structure similar to the system according to the invention into the Kay system. The newly cited reference, Saikaishi, is only applicable to show frequency variation of an oscillator by switching between capacitors. Such a disclosure is entirely insufficient to overcome the gap between Kay and the invention of the instant application. The

same holds true for U.S. Patent No. 6,314,125 to Shanbhag when taken in combination with Kay and Saikaishi.

In establishing a *prima facie* case of obviousness, it is incumbent upon the Examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion, or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the applicants' disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir. 1988), *cert. den.*, 488 U.S. 825 (1988). The Examiner has not provided the requisite reason why one of ordinary skill in the art would have been led to modify Kay or Saikaishi or Shanbhag or to combine Kay's and Saikaishi's and Shanbhag's teachings to arrive at the claimed invention. Further, the Examiner has not shown the requisite motivation from some teaching, suggestion, or inference in Kay or Saikaishi or Shanbhag or from knowledge available to those skilled in the art.

It is well settled that almost all claimed inventions are but novel combinations of old features. The courts have held in

this context, however, that when "it is necessary to select elements of various teachings in order to form the claimed invention, we ascertain whether there is any suggestion or motivation **in the prior art** to make the selection made by the applicant". Interconnect Planning Corp. v. Feil, 227 USPQ 543, 551 (Fed. Cir. 1985) (emphasis added). "Obviousness can not be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination". In re Bond, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). "Under Section 103 teachings of references can be combined **only** if there is some suggestion or incentive to do so." ACS Hospital Systems, Inc. v. Montefiore Hospital et al., 221 USPQ 929, 933, 732 F.2d 1572 (Fed. Cir. 1984) (emphasis original). "Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be '**clear and particular.**'" Winner Int'l Royalty Corp. v. Wang, 53 USPQ2d 1580, 1587, 202 F.3d 1340 (Fed. Cir. 2000) (emphasis added; citations omitted); Brown & Williamson Tobacco Corp. v. Philip Morris, Inc., 56 USPQ2d 1456, 1459 (Fed. Cir. Oct. 17, 2000). Applicants believe that there is no "clear and particular" teaching or suggestion in Kay to incorporate the features of Saikaishi or Saikaishi and Shanbhag, and there is no teaching or suggestion in Saikaishi or Shanbhag to incorporate the features of Kay.

The Examiner has "not given patentable weight" to the "preamble reciting a use in 'a radio access control system'" because "it merely calls for a field of use." Applicants disagree with this characterization. However, in an abundance of caution, this system has been incorporated to even more clearly define the applicability of the invention of the instant application to the radio access control system. See In re Dean, 130 U.S.P.Q. 107 (C.C.P.A. 1961)

Insofar as claim 1 is allowable, and due to the fact that claims 3 to 8 ultimately depend upon claim 1, the rejections of these claims in item 4 on pages 3 to 4 of the above-identified Office action are now believed to be moot. Claim un

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1, 11, 12, and 16. Claims 1, 11, 12, and 16 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 1, 12, or 16.

In view of the foregoing, reconsideration and allowance of claims 1 to 8 and 10 to 19 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



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